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**From:** Pena-Molina, Ana [pena-molina.ana@epa.gov]  
**Sent:** 7/24/2017 2:47:11 PM  
**To:** pizarro, luis [pizarro.luis@epa.gov]  
**CC:** Kuziomko, Joseph [kuziomko.joseph@epa.gov]; Shuster, Kenneth [Shuster.Kenneth@epa.gov]  
**Subject:** FW: ORCR Project regarding OB/OD sites in Virginia  
**Attachments:** NSW Yorktwon RCRA ro CERCLA Deferral.pdf; Federal Facility Compliance Agreement MCCD Quantico.pdf; RCRA Closure\_Post-Closure & Contingent PCC Plan Charlie Demo.pdf

Hello

Leslie Romanchik suggested we contact you for more information regarding our OB/OD project. Please See below.

Best,

Ana Pena-Molina

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**From:** Romanchik, Leslie (DEQ) [mailto:Leslie.Romanchik@deq.virginia.gov]  
**Sent:** Wednesday, July 19, 2017 1:27 PM  
**To:** Pena-Molina, Ana <pena-molina.ana@epa.gov>  
**Cc:** Shuster, Kenneth <Shuster.Kenneth@epa.gov>; Kuziomko, Joseph <kuziomko.joseph@epa.gov>; pizarro, luis <pizarro.luis@epa.gov>; Kinslow, Sara <Kinslow.Sara@epa.gov>; McGoldrick, Catherine <McGoldrick.Catherine@epa.gov>; Mirro, Rachel <mirro.rachel@epa.gov>  
**Subject:** RE: ORCR Project regarding OB/OD sites in Virginia

Ana,

Below is the additional information for the remainder of the Virginia sites:

US ARMY GARRISON, FORT A.P. HILL

The units have been deferred to the RCRA Corrective Action Program. EPA Region 3 is in the lead at this site. Please contact Luis Pizarro for further information on this site and answers to the questions.

NAVAL WEAPONS STATION YORKTOWN

The units were deferred to the CERCLA program in 2003. Deferral letter attached. Please contact the EPA Remedial Project Manager for further information on the status of these sites and answers to the questions. See <https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0302869>

US NAVY DAHLGREN

This unit has been deferred to the CERCLA program. It is designated as OU 15 which includes site 44 rocket motor pit and site 3 ordnance burn structure and is collectively known as the No. 1 burn area. Additional information on OU 15 can be found here - <https://semspub.epa.gov/work/HQ/186596.pdf>. Please contact the EPA Remedial Project Manager for additional information. Contact information found here - <https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0302862&msspp=med>.

MARINE CORPS BASE, QUANTICO

EPA issued a Federal Facility Compliance Agreement (FFCA) to the site in 1991 (attached). The FFCA requires the facility to submit closure, contingent closure and post-closure care plans for this unit. See pages 6-7 for information about the unit and page 10 for closure requirements. Such plans were submitted in 2001 (attached), but were never reviewed

or approved by Virginia DEQ as the unit is within an operating range. At one point, we attempted to defer to CERCLA but this did not work out. The attached plan should answer many of the questions.

Should you require anything further at this point, please let me know.

Thanks, Leslie

Leslie A. Romanchik  
Hazardous Waste Program Manager  
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**From:** Pena-Molina, Ana [<mailto:pena-molina.ana@epa.gov>]

**Sent:** Monday, July 17, 2017 3:52 PM

**To:** Alonso, Angela (DEQ); Romanchik, Leslie (DEQ); [ahsby.scott@deq.virginia.gov](mailto:ahsby.scott@deq.virginia.gov); Mirro, Rachel; Matyskiela, Linda; pizarro, luis; Hall, Kristen; Kinslow, Sara

**Cc:** Shuster, Kenneth; Kuziomko, Joseph; Kohler, Amanda

**Subject:** ORCR Project regarding OB/OD sites in Virginia

I am writing to seek information on the closure status of the Open Burn/Open Detonation (OB/OD) units listed below to assist ORCR in a new project to assess closure of OB/OD units. With this information, EPA will be able to identify, evaluate, and document procedures, techniques, and criteria to assess, clean up, and close OB/OD units/sites in a standardized manner.

EPA has been documenting soil and ground water contamination from OB/OD units and the costs to clean them up. Given the inordinate extent of contamination and costs of clean-up that have been reported, we are now seeking to learn more about the monitoring, clean-up procedures, successes, and costs of these efforts. There is currently no national guidance on procedures to assess, monitor, and clean up OB/OD sites, nor metrics to achieve clean closure of OB/OD units. We are requesting information on the clean closure (CC) of OB/OD sites to assist us.

Please first verify the following codes for your appropriate facilities in Virginia.

Virginia							
FACILITY_ID	FACILITY_NAME	UNIT_NAME	UNITs	UNIT_DETAIL_SEQ	legal status	operating status	EFFECTIVE_DATE
VA7213720082	US ARMY GARRISON FORT BELVOIR	RANGE T-6	22	4	IT	CC	20030925
VAD981112618	AEROJET ROCKETDYNE, INC.	THERMAL TRMTUNIT 1	3	4	RD	CC	20130411
VAD981112618	AEROJET ROCKETDYNE, INC.	THERMAL TRMTUNIT 3	5	3	RD	CC	20130411
VAD981112618	AEROJET ROCKETDYNE, INC.	THERMAL TRMTUNIT 4	6	3	RD	CC	20130411
VAD981112618	AEROJET ROCKETDYNE, INC.	THERMAL TRM UNIT 2	8	2	RD	CC	20130411
VA2210020416	US ARMY GARRISON, FORT A.P. HILL	OB/OD DEMO 77 & 80	2	4	LI	CA	19981202
VA8170024170	NAVAL WEAPONS STATION YORKTOWN	BURN PAD	6	4	IS	SF	19940909
VA8170024170	NAVAL WEAPONS STATION YORKTOWN	EOD RANGE	10	2	IS	SF	19940909

VA7170024684	US NAVY DAHLGREN	#1 POWDER BURN	5	1	IS	SF	19880331
VA1170024722	MARINE CORPS BASE, QUANTICO	CHARLIE DEMO	4	2	NN	IN	19920427

### Questions:

We have a number of questions we hope you can answer regarding your clean closed/closing sites. The operating status of the facilities will determine which sets of questions are to be answered. We understand that some of this data may be difficult to find but we would really appreciate if you could dig it up for us as it will help us move forward with this project and eventually help EPA update OB/OD closing procedures.

### Clean Closed (CC) Facilities' questions:

1. Did these sites complete clean closure or are they still in the process of seeking to clean close?
2. Did the state officially certify/approve the unit(s) Clean Closed (CC)?
3. What was the volume of waste disposed, frequency (e.g., daily, weekly, monthly, periodically), and years of operation?
4. Was it OB or OD or both?
5. What sampling procedures were used to identify the extent of the contamination, including kick-out and fallout (e.g., geophysical techniques used to identify buried munitions and fragments; trenching; grid, spokes, meandering way, visual, or random sampling of soil/for kick-out; depth; until no more found; and ground water monitoring)?
6. Were components of the unit removed (e.g., any platforms, pans, pads, and liners)?
7. What clean-up procedures and techniques were used to clean up the contaminants (e.g., excavation, soil sifting)?
8. What data was recorded and metrics used to evaluate the extent and levels of contamination?
9. What criteria was used to certify clean closure (e.g., EPA action levels)?
10. What was the total cost to achieve Clean Closed (CC) status?

### Inactive/Closing, but Not Yet RCRA Closed (IN) and Corrective Action and Superfund (CA, SF) Facilities' questions:

1. Are these units seeking to clean close?
2. If so, what criteria is being used to attempt clean closure (e.g., EPA action levels)?
3. What was the volume of waste disposed, frequency (e.g., daily, weekly, monthly, periodically), and years of operation?
4. Was it OB or OD or both?
5. What sampling procedures are being used to identify the extent of the contamination, including kick-out and fallout (e.g., geophysical techniques used to identify buried munitions and fragments; trenching; grid, spokes, meandering way, visual, or random sampling of soil/for kick-out; depth; until no more found; and ground water monitoring)?
6. Were components of the unit removed (e.g., any platforms, pans, pads, and liners)?
7. What clean-up procedures and techniques are being used to clean up the contaminants (e.g., excavation, soil sifting)?
8. What data is being recorded and metrics being used to evaluate the extent and levels of contamination?
9. What is the total cost to date to remediate the site?

We plan to have a contractor gather this information on a select number of sites from the states. The purpose of this current effort is to gather information on the status of cleanup at these sites to help us identify which sites have the best information for our contractor to follow up with. Thus, for this effort, we seek answers to questions 1-4 and the last

question in each set, and for the remaining questions we seek whether or not good information exists to answer these questions. We hope to receive this information by July 31<sup>st</sup>. Thank you for taking time to assist us with this project. If you have any questions, please feel free to reach out to us. Any information that you may be able to provide will be helpful in our project.

Sincerely,

Ana Pena-Molina  
703-308-8753

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